

**In the Claims:**

1. (Original) A composition for removing residues from the microstructure of an object comprising:
  - carbon dioxide;
  - an additive for removing the residues comprising a fluoride having a formula  $\text{NR}_1\text{R}_2\text{R}_3\text{R}_4\text{F}$ , where  $\text{R}_1$ ,  $\text{R}_2$ ,  $\text{R}_3$ , and  $\text{R}_4$  are each independently a hydrogen or an alkyl group; and
  - a co-solvent for dissolving said additive in said  $\text{CO}_2$  at a pressurized fluid condition.
2. (Original) The composition of claim 1 wherein the additive further comprises a basic compound.
3. (Original) The composition of claim 1 wherein  $\text{R}_1$ ,  $\text{R}_2$ ,  $\text{R}_3$ , and  $\text{R}_4$  are hydrogen.
4. (Original) The composition of claim 1 wherein  $\text{R}_1$ ,  $\text{R}_2$ ,  $\text{R}_3$ , and  $\text{R}_4$  are an alkyl group.
5. (Original) A composition for removing residues from the microstructure of an object comprising:
  - carbon dioxide,
  - a compound having a hydroxyl group,
  - a fluoride having a formula  $\text{NR}_1\text{R}_2\text{R}_3\text{R}_4\text{F}$ , where  $\text{R}_1$ ,  $\text{R}_2$ ,  $\text{R}_3$ , and  $\text{R}_4$  are each independently a hydrogen or an alkyl group.
6. (Original) The composition of claim 5 further comprising a basic compound.
7. (Original) The composition of claim 6 wherein the basic compound is selected from a quaternaryammoniumhydroxide, an alkylamine, an alkanolamine, a hydroxylamine, and mixtures thereof.
8. (Original) The composition of claim 5 further comprising a co-solvent selected from dimethylacetamide, propylene glycol, dimethylsulfoxide, deionized water, acetic acid, and mixtures thereof.

9. (Original) The composition of claim 8 wherein the co-solvent comprises deionized water.
10. (Original) The composition of claim 8 wherein the co-solvent is substantially free of water.
11. (Original) The composition of claim 5 wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> are hydrogen.
12. (Original) The composition of claim 5 wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> are an alkyl group.
13. (Original) The composition of claim 5 wherein the fluoride is selected from ammonium fluoride, tetramethylammoniumfluoride, tetraethylammoniumfluoride, tetrabutylammoniumfluoride, tetrapropylammoniumfluoride, choline fluoride, and mixtures thereof.
14. (Original) The composition of claim 5 wherein the compound is selected from ethanol, methanol, n-propanol, isopropanol, n-butanol, iso-butanol, diethyleneglycolmonomethylether, diethyleneglycolmonoethylether, hexafluoroisopropanol, and mixtures thereof.
15. (Canceled)
16. (Currently Amended) The composition of claim ~~15~~ 19 wherein the additive is dissolved within the cosolvent.
17. (Canceled)
18. (Currently Amended) The composition of claim ~~17~~ 19 wherein the residues are at least one selected from photoresist, UV-hardened resist, X-ray hardened resist, ashed resists, carbon-fluorine containing polymer, plasma etch residues, organic process contaminants, and inorganic process contaminants.

19. (New) A composition for removing residues from the microstructure of an object comprising:
- carbon dioxide wherein the carbon dioxide is in a pressurized or a supercritical fluid state;
  - an additive comprising a fluoride having a formula  $\text{NR}_1\text{R}_2\text{R}_3\text{R}_4\text{F}$ , where  $\text{R}_1$ ,  $\text{R}_2$ ,  $\text{R}_3$ , and  $\text{R}_4$  are each independently a hydrogen or an alkyl group, and mixtures thereof and optionally a basic compound; and
  - a cosolvent selected from an alcohol, dimethylacetamide, propylene glycol, dimethylsulfoxide, deionized water, acetic acid, acetone, ethanol, propanol, dimethylformamide, N-methyl-2-pyrrodine, diethylene glycol methyl ether, and mixtures thereof.
20. (New) A composition for removing residues from the microstructure of an object comprising:
- from 0.001 to 8 weight percent of an additive comprising a fluoride having a formula  $\text{NR}_1\text{R}_2\text{R}_3\text{R}_4\text{F}$ , where  $\text{R}_1$ ,  $\text{R}_2$ ,  $\text{R}_3$ , and  $\text{R}_4$  are each independently a hydrogen or an alkyl group, and mixtures thereof and optionally a basic compound;
  - from 1 to 50 weight percent of a cosolvent selected from an alcohol, dimethylacetamide, propylene glycol, dimethylsulfoxide, deionized water, acetic acid, acetone, ethanol, propanol, dimethylformamide, N-methyl-2-pyrrodine, diethylene glycol methyl ether, and mixtures thereof; and
  - carbon dioxide.
21. (New) The composition of claim 20 wherein the additive further comprises methane.
22. (New) The composition of claim 20 wherein the additive further comprises a surfactant having a  $\text{CF}_x$  group.